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SPECIALIZATION OF THE WORK OF TEACHERS IN SECONDARY SCHOOLS

A SECONDARY teacher's work is specialized when he devotes his time to a single subject or natural group of subjects. As laid out by the Committee of Ten there are six departments in the secondary schools, viz.: ancient language, modern language, English, history, mathematics, natural science. It is obvious that these subjects may be split into others as, *e. g.*, ancient language into Latin and Greek, science into physics, chemistry, botany, etc. Or, on the other hand, the most closely related subjects may be united, as, *e. g.*, ancient and modern language, science and mathematics, history and English. It is clear then that specialization is a relative term—it may be somewhat loose or it may be very close. In all cases, however, its purpose is the same, and that purpose the same that it is in medicine, trade, or manufacture, viz., by confining the attention to a comparatively few related things to know and use those things more thoroughly than would be possible with many unrelated things.

The specialist who is teaching one subject in the high school is likely to know the facts of that subject more thoroughly than the man who teaches three; he will have at the same time more leisure for recreation, reading and the general interests of the school. But the advantages of specialization by no means stop there. Thorough knowledge of a subject begets enthusiasm in its pursuit and this enthusiasm is likely to infect the pupils who come in contact with it. Thorough knowledge, too, commands

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the respect and admiration of the pupils, the principal, colleagues, and the public outside the school. I remember distinctly the impression made upon me as a young teacher by a colleague whom I found analyzing drinking water in his laboratory for a townsman who paid him for his skill and knowledge. A specialist in English often conducts a literary society or a Chautauqua circle, a specialist in history is a tower of strength in a local historical society, and I have known a specialist in botany to gain great repute by his greenhouse in which he cultivated the plants for analysis in his own classes. Is it not clear that a man who can give enough time to a subject to make his knowledge of it broad, sure and usable will gain not only deep and abiding satisfaction for himself but also confidence in the community for his school and secondary education in general? Quite as gratifying will be the enhanced respect of college officers who find intelligent and broadening scholarship in the preparatory schools. The case of specialization may be put more strongly. Liberal expenditure of time is *necessary*, I will not say to know the *literature* of a high school department, but to know enough of the *text-book* literature of the department to make a justifiable choice of books for class-room use. Large amounts of the people's money have been wasted for unusable books which have been put into the schools only to be thrown out in two or three years. Such experiences necessarily and naturally weaken the confidence of school committeemen in the teachers.

In my hearing within a few months at a great gathering of classical teachers, a speaker criticised school editions of classical authors for the lack of three features which he stated. As a matter of fact all three features have been contained in certain text-books of prominent firms for years. To add to the necessity above outlined, the high school text-book literature in these days is voluminous and of very unequal merit. To refer to my own department, I have on my desk now waiting for examination Comstock's Virgil, Greenough's new Cicero, Bennett's Latin Composition, Barss' Cornelius Nepos and Humphrey's Quintus Curtius—all of them published within a

few months, and all worthy of examination by every secondary Latin teacher. Before adopting a book for a class it should be examined in detail and such questions as these should be asked: Is it correct? Is it interesting? Is it too difficult? Does it show sense and sympathy? Does it supplement or clog the teacher? And, most important of all, is it adapted to me and my class? Many books are good but are not good for me and my class.

The presence of trained specialists in high schools would help to do away with incomplete, brief, sketchy courses, too slight to be useful or to absorb the interest. When teachers have three or four subjects to cover they can do little more than expound the text-book, and do not feel the limitation of so doing, but when they are full of their one subject they are constantly demanding and filling a large place for it in the school curriculum.

Some principals claim that the teaching of several subjects at once and the transfer of teachers from one subject to another make these teachers broad, versatile and flexible. There may be something in this, but is not the breadth sometimes attained at the expense of depth, and the flexibility at the expense of power? Moreover, every department in our high schools is broad, and a teacher may keep himself out of the ruts by specializing in different lines in different years. To illustrate from my own department, a teacher's energy in one year might be most largely given to grammar, in another to translation, in another to Roman history, in another to Cicero, in another to Virgil, while the increasing flexibility of college requirements and the large number of new authors being edited makes it possible to read new Latin every year.

The specialization of studies in high schools is, at least to some extent, practicable. Suppose that a small high school of three teachers is organized to teach the Latin scientific group of the Committee of Ten. Obviously with six subjects each teacher must take more than one. The foreign languages, Latin and German, naturally go together, giving a teacher twenty-nine recitations per week, mathematics and science (mutually helpful and naturally allied) make a broad department and give a teacher

twenty-nine recitations per week. English and history are often combined, for the history of a country explains its literature and its literature its history. Historical reading, too, furnishes subjects for essay writing. These two subjects make twenty-two recitations per week—seven less than the other teachers, but this is right, for English requires a large amount of outside work in correcting compositions and in personal conference with students, and the history requires very wide reading. The science, with double periods for laboratory work, will require of the teacher assigned to it heavier work than that of the language teacher. Might not the difficulty be met by giving to the language teacher more of the clerical work of the school than to the science teacher? Such adjustments as I have just indicated consummated in a spirit of friendly accommodation would often prevent the overloading of a teacher with a third subject and a distasteful one at that. They would give to the teachers in a small school a professional feeling and an investigating spirit. There are of course hundreds of teachers in the high schools of the Northwest who are better able to specialize than the ones I have supposed. Many do not have more than twenty recitations per week and cover a far smaller territory than that indicated above. Instead of all sciences they have but one, instead of all languages but one. Indeed, in some of our larger high schools a process of over-specialization has been going on which seems to invite a word of warning. It is not wise, *e. g.*, to confine a teacher to beginning Latin as is done in some of the city high schools. If she does not know enough to teach Cæsar she certainly cannot teach beginning Latin well, and experience with Cæsar would soon open her eyes to some deficiencies in her first year preparation for that author. On the other hand, the teacher of Cæsar who shares part of the work with the beginners will sympathize more fully with the pupils' struggles during the first year, and understand better their difficulties when they come to the second year.

A teacher who has only twenty recitations a week in one department, like Latin or physics or history, should be enlar-

ging his view and increasing his knowledge and skill every year. His studies may lead him to increased practice along the precise lines of work that he is taking with his pupils so that he may become more facile in his mastery of simple things, or he may assimilate the ideas of others in wide reading, or he may to a certain extent make investigations in his department for himself. A specialist in Greek who is also burdened with the care of one of the very largest high schools in Michigan presented at the classical conference in Ann Arbor last year a study of the conjunction *πρίν* which involved the reading and re-reading of every page of the works of Xenophon. The greatest need for secondary Latin teachers at present, it seems to me, is greater practical mastery of the language itself in its simpler classical forms, including of course such knowledge of Roman history and life as will make the language thoroughly intelligible and interesting. To secure this mastery the teacher needs to read and write more Latin. To prepare such specialists it would seem that there should be many undergraduate and graduate courses in our universities in Latin composition, Roman life and the rapid reading of comparatively easy Augustan prose. Discredit has sometimes been brought upon graduate work by Ph.D.'s who possess little mastery of the common things in their department. A minute knowledge of the meters of Catullus will avail little in a high school to a teacher who uses *ut non* to express negative purpose and has too little knowledge of Roman history and constitution to explain the easier allusions in Cicero's speeches.

Two or three possible objections remain to be answered. The principal of one of the prominent academies of America charged not only with the instruction but with the moral well-being of boys away from home is quoted as saying that he finds it every year increasingly difficult to get teachers who will take any care of the boys outside the class room. Can it be that teachers become so absorbed in their specialties as to forget their duties as teachers of human beings? There is need of a word of warning here. It may be said, however, that the limitation of a teacher's work to one department, by making

time out of the class room less crowded ought to give him more time for his duties to individual students and to the general welfare of the school as a whole.

Again some specialists become so absorbed in their specialties as to undervalue other departments, and even to exhibit before their pupils gross deficiencies in mental equipment and training. Perhaps the most common and trying of these deficiencies is in the use of the mother tongue. The remedy for this evil is largely with the colleges and universities. A young man has been telling me today of a technical school in which pupils are permitted to slight English and German nominally required in order to get more time for science and mathematics. A refusal to give the higher degrees to pupils deficient, *e. g.*, in English would seem to be justified. For the rest, public and school sentiment and the generally rising culture of our communities may be relied on to castigate the illiteracy of narrow specialists. I say narrow, for a broad specialist will see that a considerable basis of training in all departments is necessary to high and permanent achievement in his own. It is to be hoped that the old idea of liberal education will survive in our colleges and that city examinations for teachers' positions will still insist upon a reasonable knowledge of all departments of secondary education, while leaving to the candidate the choice of a more minute and searching examination in some one department. I retain a distinct impression of the advantage to me of reviewing geometry for such an examination some years ago.

To a certain type of mind delving is impossible, and principals tell us that some of their teachers, assigned to a particular department, prepare themselves only so far as to save themselves from confusion of face before their classes, using the extra time afforded by the department assignment for matters quite extraneous to school interests. The difficulty here is with the individual and not with the department system. It should be met by transferring the teacher to a more elementary school. Many of these persons are admirably bright and sympathetic and enjoy imparting knowledge.

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FIVE AXIOMS OF COMPOSITION TEACHING

WITH your permission I will endeavor to formulate, and briefly to illustrate certain principles, or maxims, of English teaching which seem to me absolutely fundamental to this most important part of the work of education. When I name them, as in my title, *axioms* of English teaching, you understand me, of course, not to use the word *axiom* in its more modern, technical sense, as it is employed in logic and geometry, where it means a self-evident proposition, but in its primitive, literary meaning; just as John Harris, in his *Great Teacher*, applied it to the *Golden Rule*. By no means would I arrogate to my aphorisms the quality of instantaneous and final refusal to be questioned. I have worked them out empirically, and also dialectically; having taught the subject a great deal, and reasoned much with other teachers of it. Nor do I hope by any means to have made always precisely the right allowance for my personal equation. Yet I call my maxims axioms because it seems to me they are essential starting points in building up a wise course of procedure to constitute a methodic in English pedagogy; and that I did not say maxims, or principles, or rules, was because I wanted a title that should seem at the very outset to make all possible claim of absolute cogency.

I. The faculty of speech, in both child and youth, resides in that part of the spiritual nature, below consciousness and volition, which is to be reached, for cultural purposes, only through the affections and the taste.

The child gets his language solely by imbibing it from his environment; if there is no audible speech in his environment he imbibes no speech. But he does not imbibe every word he hears; his curiosity does not extend to everything he comes in contact with. Only the things that appeal to him, that interest and please him, or perhaps terrify him, sink into his nature.

Nothing else can possibly get into his soul. One of the most astonishing facts about human life is the power we all have to shed the rain of wisdom, which falls upon us and we do not take it in. The youth protects himself against that overplus of systematic knowledge which we thrust upon his attention by simply remaining impervious to it. We call him dull; but nature knows what she is doing.

The child learns none of the English that fills the air about him except just those strains of it to which his nature responds. The youthful nature responds when its wonder is aroused; its imagination kindled; its constructive, its benevolent, altruistic instincts called into play; its reverence moved. The child imbibes, absorbs, imitates, from his environment, a few things, and passes by many things as not being for him, not even noting the fact that these alien things exist. He is happy in his world, —a world which he is perpetually enlarging and refurnishing. The influx into this world he does not and cannot regulate by acts of his will. Nor can we, as parents and teachers, regulate it by acts of our will.

Only so far as it is given us to determine the child's environment can we exert any formative influence whatever on his speech; and in this environment, when we have determined it and enriched it with all thinkable good elements, he takes in nothing that does not catch his attention by virtue of its inherent power to impress, to interest, to please, his moral or æsthetic nature. Information he takes in with his intellect, and deposits in his memory; but this intellectual apprehension, this laying up in the chambers of remembrance, so far as it is a mere getting and storing, adds nothing to his speech. For that is not a lingual possession which serves merely to reproduce remembered things, and does not occur spontaneously to form the expression of original thought.

The emotions—as we are wont to figure the mind in our ordinary speech—lie deeper than the intellect; and while we can turn our minds to what we will for the purpose of study, or cool intellection, our feelings are subject to vicissitude and obey

occasions. We require a youth to set his mind at work, to learn his lessons; we hold him responsible for concentrating his attention. This is the scholastic discipline, and involves compulsion, insistence, duress. The emotions can be reached in no such way. If the wonder, the pity, the reverence, of the youth are to be roused to activity, all disciplinary arts must, of course, step aside, and the occasion of the emotion be simply brought within his ken, where his imagination may seize upon it and picture it to his spiritual eye. The one process we call instruction, a building up; the other is no process at all, but is the simple act of presentation. To tell a story well, to read a simple poem well, to show an impressive picture, to enforce a lesson of self-sacrifice,—these are simple pedagogic acts which not only need no elaboration, but even insist on being spared elaboration, as a procedure incongruous with their very nature.

The scholastic world is beginning to grow conscious of a dereliction in its tendencies. You must have noted how many educators have recently tried to enforce the importance of the æsthetic side of education, and have sought to show how the æsthetic nature may be reached through literature well interpreted. The conviction is generally held that the schools have become one-sided, over-intellectualized, given too much to restless instruction, organized and planned. The course of procedure called for by the needs of the emotional part of education cannot be schematized and tabulated, apportioned to terms and weeks. Hence the superintendents and the normal schools have, perhaps unconsciously, and by no means solely because they have arid conceptions of human life and human happiness, tended to restrict their activity to the things they could most clearly prescribe, and, I doubt not, to the things they were surest to be able to examine and mark. An experienced teacher told me of the time when there was a general movement towards doing away with the literary reading books in favor of reading books full of useful information. The experienced teacher I have referred to attributed to this abandonment of æsthetic reading in the schools the miserable decay of the art of express-

ive reading among our high school youth,—a decay which he had noted with regret, and had had the fullest opportunity for observing, having seen more of the high schools of Massachusetts than any other man. And I do not hesitate to go further, and to connect with the now almost universal inability of teachers, and I will say, of college preparatory teachers especially, to read English, the universal complaint that comes from the colleges of the feeble and slovenly English of their students.

The college preparatory schools are peculiarly restricted to the intellectual side of education. Latin, Greek, and mathematics are entirely lacking in power to penetrate to the imagination. For you must remember that Latin and Greek are concerned, at least in the schools, solely with memorizing and slow construing, and that Homer and Virgil have not been made accessible, as literature, to boys entering college.

Moreover, English itself, coming into the preparatory schools, is usually subjected to the old dead-language conventions, and is taught as if it also were a thing recondite, abounding chiefly in mysteries of etymology and syntax,—a thing which only learned men can fathom,—to a boy a grinding task, which he is resolved he never will meddle with again, when once the days of school compulsion are over. So we find that just as a high school spends a year in reading three or four books of Virgil, so also it undertakes two books of *Paradise Lost*, as if Milton's language were dead and hard,—his poem as a whole beyond the reach of school.

I come back to my thesis, that the youth's English is to be reached only through the emotional nature. Not poetry analyzed, but poetry relished, enjoyed, repeated with gusto, declaimed with abandon, acted with energy, felt as a heat melting to hard natures, seen as picture with the eye of the imagination,—poetry received in the spirit in which it was offered by the artists who made it,—poetry thus welcomed, and nothing else, will penetrate to the deep strata of the soul where language dwells, make the mind plastic and receptive, impressible to words, responsive to thought, full of sympathy with the race

in its hopes and aspirations. Every cultivated Greek knew his Homer, every cultivated Roman his Virgil, every cultivated Italian knows his Dante, and every cultivated Anglo-Saxon knows his Shakespeare. The great poets are the conservators and teachers of the language. The great quarry of diction is our imaginative literature. Neglect this, and the native speech runs to waste. We have neglected it, and our native speech has run to waste.

II. The act of speech exists only as a medium, or means, of communication between one mind and another, and without the two correlates, speaker and hearer, both actually or in imagination present, there can be no speech. The writer speaks to his public of readers; in our most secret of diaries, in our jottings in our memorandum books, we speak to our future selves; the little girl, playing alone, receives a caller, and prettily enacts two parts, doubling her personality in imagination. Nobody writes or speaks without contemplating a reader or a hearer. You cannot conceive of articulate words as hurled forth into the desert air, where hearing shall not latch them, unless it be an act of acute mania. Imagine a prisoner condemned to write each day a composition of so many pages, this composition never to be read, but to go each night into the warden's wastebasket. Did this refinement of cruelty ever occur to any truculent prison official? But it occurs to you at once that if our prisoner is a politician and can reach a paper with his copy, and read himself in type in the morning, he is really no longer under restraint, but is virtually living in the tide of affairs and associating with his fellow men.

My parable of the prisoner forced to write with nothing to say and nobody to say it to, describes almost exactly the case of the schoolboy in the hands of his English teacher. Whereas in nature he who sits down to write or lifts up his voice to speak is moved by a desire to project his thought so that it may meet the receptive senses of an audience listening or a public reading; and if he has no thought to project, or is aware of no attentive ears or eyes ready to catch his projected words, he

refuses to wet his pen or talk into the empty air; in the school, on the other hand, the English teacher, who does not mean to be cruel, begins by prescribing composition; not because there is something that needs to be said, but because an act of saying must be performed, in order that it may be judged and marked for its virtue as speech; and not because there is an expectant or willing public to be instructed or entertained,—for there is no such public,—but that a hurried, much oppressed teacher may keep his class records and issue his report.

The indispensable conditions of an act of expression are, first, a mind possessing a communicable thought, and, secondly, a mind eager to receive that thought and opening to it its avenues of intelligence. The school usually provides neither of these conditions: it should provide both. The teacher considers how often he shall require compositions to be written; he prescribes their length; he talks much about paragraphing, punctuation, the use of capitals, correct spelling. That is, he begins with the act of expression; as if expression could begin with itself, and had power to order up thoughts to serve as dummies on which to show the varied garments of speech; and as if expression—that is the very act of speech—had power to conjure up the simulacrum of a listening audience to cheer the speaker and make expression worth while.

The composition teaching in our schools is impotent to the extent to which it fails to provide the two prime conditions of composition,—a well-furnished mind conscious of having something to say, and a listening or reading public to which this something may be said with the hope of giving pleasure. And these conditions may be attained, provided we seriously mean to have them and can bring ourselves to the point of cutting loose from certain old schoolmasterly prepossessions. And this consideration brings me to my third axiom, which I herewith propound.

III. A group of youth consists of individuals who are not alike, and who cannot possibly all love or like or care for the same things. Purely objective things of course remain ever the

same. If the business is to conjugate a Greek verb, there is only one way to do it,—all the class must do precisely the same thing. But if a magnificent passage of the *Iliad* is to be translated, tastes come into play, and pupils show their various culture. In matters intellectual pupils advance in line, or according to their alertness in observing, judging, reasoning. In matters of taste, in matters wherein the heart is enlisted, pupils reveal their differences, and will not, cannot, move all together.

Now, as composition, to be real and not merely spectral, must issue from a mind conscious of possessing something that other minds do not possess, and with which, accordingly, the possessing mind may interest and instruct the other minds by communicating it, it follows that the English teacher must to a certain extent isolate his pupils in composition, and give to each his own subject of thought and research, showing the possibilities of this or that theme, and encouraging each pupil to explore this or that field, so as to find something worth telling, to which the rest shall have to listen. All this is easily possible. If you are skeptical about it, so much the worse for you: old teachers as you are, you do not know the irresistible push of youth; or, at any rate, you do not know the patience, the zeal, the pride in good work, the *laudum immensa cupido*, of high school girls.

A class in composition should be as large as possible, because it is to serve as audience. Remember that, of a composition enterprise, the end and aim is publication. The listening audience was contemplated from the outset. The writer must not be cheated of his reward, the plaudits of his mates. The anticipation of this public appearance on the platform has spurred him on to do his best, to cull his English, to find piquant things in books, in nature, in history, that shall rivet attention, and, for his ten minutes, make him monarch of the swelling scene. Every good composition—good because careful in its language and because it sets forth an original thought—must have the reward of publication in some form. It may be printed in the school paper; it may be read from the platform; it may be passed round the class for inspection, and lent to some pupil of

dull ambition, who needs a stimulus, to take home for thoughtful examination.

Thoroughly pernicious is the notion that pupils must be made to compose something every day, for the sake of practice in composing. If you undertake this daily composition enterprise you must rake together all the pettinesses of current life for your material; you must expect, at best, a wish-wash of trivialities; the stuff is too abundant to be read; it is too thin to interest anybody, even if it could be read. You do ill to set up the ideal of fluency as the goal of your composition teaching. The market is glutted with fluency, with highly colored descriptions of things not worth describing. A man may easily devote the entire leisure of his eyes and his mind to the reading of matter all composed and printed within the twenty-four hours. What a difference between such a man and one who is wont to commune with his Dante, his Homer, his Shakespeare! Let us be thankful that the national head of our educational system, the man who wrote that classic of pedagogy, the *Report of the Fifteen*, is our profoundest Dante scholar, a man who has abundantly exhorted us to study the poets in order to preserve the sweetness and sanity of our minds, a man whom, if you call my doctrine sentimental, you must include under the same condemnation. And though I am making an episode, and wandering a little from my proper theme, I will not forego the opportunity to say that our other eminent Dantean, Eliot Norton, has given us in his *Heart of Oak* books his doctrine of a child's reading, and invites young minds to a wholesome feast of the imagination. But I pass to my next axiom:

IV. The correct use of the mother tongue is not a specialty of certain professionals, but belongs as an essential element to the manners of every cultivated man and woman. This you allow at once to be axiomatic; you will not dispute its truth, and I am not going to enlarge upon it. But I am going to insist upon what seems to me the necessary correlative of it, and submit that the *teaching* of the correct use of the mother tongue should not be assigned to a special teacher. If the

teachers of a school are gentlemen and ladies of culture, they know good English from bad, are competent to correct errors, and to appreciate the good qualities of writing. A single teacher laboring over the correction of great masses of composition effects nothing. The general tone of a school may be corrupting to the English of its pupils in spite of the most indefatigable work in the way of correction by a specialist.

If a pupil is to learn good English at school, he must have more than a good teacher; he must breathe in the school a good moral atmosphere. The English learned at school is a part of the morals learned at school; it is a part of the *esprit de corps*, a part of the social standing of its teachers and pupils, a part of the desire to please teachers with deferential deportment, a part of the respect shown by the sexes to each other, a part of the reserve which keeps individuals somewhat apart in recognition of each other's self-respect. In short, (a school teaches its English by its total moral and æsthetic impressiveness) The teacher of English may contribute to this totality of influence; I think, indeed, his opportunity for so doing, if he teaches the literature, is peculiarly favorable. But every teacher counts for his quantum, and the principal counts for as much as all the rest; the constituency counts for very much; old traditions are a factor whose value cannot be estimated. We form a conception of a school as good because of some intangible impressions prevailing in the community, passed on as traditions, maintained in families by boys and girls who catch the school spirit and come home full of youthful gush, which fond parents know how to interpret. Then, of course, the school at its best is but one influence of many that shape the language opportunity of the youth. The youth who lives in a home with a library is separated, lingually, by a measureless chasm, from the youth who lives without books. But of this interesting subject, and its implications in school ministration, it is not my purpose now to speak.

What I must say here is that the special teacher of composition should be abolished. He does no good, and he stands in the way. The reading of a certain limited amount of juvenile

writing for purposes of correction is a pleasing task, leading to personal relations, to an appreciation of individual difficulties, to a possible giving of wise counsel. But the reading of juvenile writing in great quantities is inconsistent with mental and physical health. All the teachers of a school should share equally this task of supervising the English writing. I do not see how any teacher, man or woman, can have the effrontery to claim to know good English better than the rest; and I do not see how any teacher can submit to the drudgery of having several times his share of this work thrust upon him.

The true function of the English teacher should be to teach English literature and, historically, the English language. The English teacher should be eminently well read in the old writers, and should be competent to teach Anglo-Saxon. This is the goal to which we are tending. The correction of pupils' compositions no more concerns the English teacher than it does the teachers of history, science, Latin, Greek, and mathematics, for whom pupils write and speak English as much as they do for the teacher of literature and old English.

Every teacher should be a teacher of composition. The pupils of a school should be divided among all the teachers, for composition purposes, and the principal should have his portion. The quota of pupils per teacher in our large schools is from thirty to forty. With no more pupils in composition than this, any teacher can invent material in abundance, follow up the process of search, supervise the writing, and finally do the requisite correcting, not only without overwork, but even with perpetual elation of spirits.

And this consideration brings me to the last of the five axioms I am going to trouble you with today.

V. The work of composition, to have any success whatever, absolutely must be done by the pupil with pleasure; and the supervision and correction of composition must be done by the teacher with alacrity and curiosity. You will say I am only describing the spirit in which all school work should be done. Perhaps you are such inveterate routinists that you pooh-pooh

all such moralizing as moonshine, and plan to work in dead inertia, assuming that pupils must, as a matter of course, be regarded as unwilling to be taught, and that common sense in pedagogy leaves to harmless theorists all this dallying with interest, with the emotions, with the absurd idea that pupils can ever be brought to the point of loving their school. To be sure, when I say that composition can be taught only to willing learners, I utter a truism of education; and truisms are often so very true that they are not true at all in actual circumstances; and you think, perhaps, I have gone too far, and when I suggest that pupils must love to write and teachers must love to read and correct, you say I come from Utopia, for the like of this was never heard of on this planet. Well, I have known pupils to wait weeks, and even months, for a teacher to read a composition. The English teacher who corrects pupils' work in that way is in the glacial epoch of his teaching. And I have seen pupils who would brook no delay; they wrote to have their matter read, and read it must be; their fate they must know; they have rummaged and delved for their material; they are flushed and anxious about it; what praise or blame is it going to receive. A pupil whose composition is not good enough for some kind of publication should feel disappointed and plead for the privilege of rewriting. And this is by no means an unattainable ideal.

Once reduce the mere quantity of composition reading that any one teacher has to do to fair and reasonable limits, and we may have all good things. Teachers, I believe, prefer natural conditions,—youth effervescing in youthful ways, eager to please devoted, interested instructors; fellow teachers laboring to the same end, all concerned to stimulate those mental activities which eventuate in expression; all curious to see how youthful awkwardness rapidly gives way to ease and mastery; all bent to win for the school a name for successful teaching of English. The misery is when there is no school official to believe in these possibilities, but only a looker on to see to it that no one ventures upon an innovation.

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NATURAL SCIENCES IN THE HIGHER SCHOOLS OF GERMANY

I.

IN the early days of the German schools the classical languages and literatures formed substantially the entire curriculum. The Reformation induced some minor changes and gave a new impulse to educational activity, but we are told that in Sturm's school in Strassburg—the most famous and influential school of the sixteenth century—neither history, nor mathematics, nor the natural sciences, were considered of any consequence; that for thirty years even the elements of arithmetic were not taught, and that throughout Sturm's long tenure of office arithmetic and geometry, geography and astronomy, were never much in evidence except on paper.

The Jesuits did little more in science; *pietas et boni mores*, their great aim in education, seems to have been conceived of as independent of the physical world, but with the advent of the seventeenth century a new view of the world was promulgated and the necessity of man's knowing the significance of his environment became obvious. The ideas of Bacon and Locke were domiciled in Germany by the teachings of Ratke and Comenius, but it would be erroneous to suppose that the ideals of these advanced thinkers were speedily realized in the Fatherland. Not even in the *Ritterakademien* of the following century did the natural sciences have any important place; nevertheless, the secondary schools of the eighteenth century, influenced doubtless by A. H. Francke's experiments in Halle, recognized for the first time the utility of certain forms of scientific knowledge. Utilitarian considerations, pure and simple, determined the admission of *Heimatskunde* into the curriculum of the first *Real-schools*. As these institutions became more clearly differentiated from the humanistic schools the practical advantages of

the natural sciences were the more apparent, and in place of the desultory work in general science systematic study of particular sciences was introduced.

The natural sciences have been prescribed as an integral part of the curriculum of all Prussian secondary schools since 1816. The southern states did not recognize the innovation for several years, and when they did less time was given to the sciences than in Prussia. This distinction is still maintained in respect to the comparative time-allotment. The Prussian *Gymnasium* has eighteen week-hours in the sciences, an average of two hours a week for each class; Bavaria gives but five hours to natural history as compared with eight hours in Prussia, and does not yet recognize physics as a subject independent of mathematics; Württemberg prescribes a total of fourteen week-hours for natural history and physics, an average of one and four-tenths hours a week.

At the present time the biological sciences are everywhere completely separated from physics and chemistry. The course in natural history begins in *Sexta* with children of nine years of age, and is continued in the Prussian *Gymnasien* during the succeeding four years, in the *Realgymnasien* and *Oberrealschulen* for six years. Physics and chemistry are taught only in the upper classes.

The chief aim of all instruction in the natural sciences is to cultivate the habit of keen and accurate observation, to strengthen the pupil's reasoning powers, and to increase his ability of expressing clearly what he sees and thinks. The acquisition of a fund of systematic knowledge or useful information is a secondary consideration. Pedagogical writers and practical teachers are agreed in this; furthermore there is general unanimity of opinion touching the subject-matter and methods of instruction. So far as is possible the material used should be taken from the pupils' immediate environment; the order of progression should be from the near and simple to the more remote and difficult. In methods it is generally agreed to be advisable to work inductively rather than deductively. A revolution in methods of teaching is even now taking place.

A few years ago the ideal was to give a systematic presentation of each science; the subject-matter might come from near or far providing it satisfied the general scheme. The leaders in theory and practice of the present day have no hesitation in throwing over any scheme that early takes the child out of his local environment and substitutes for his own observation, crude though it may be, the ready-made reflections of the textbook or the opinions of the teacher. As between a little of all that can be known and all that can be known of a little, there can be no doubt in the German mind; to drink deep or not at all is surely a German characteristic. Nevertheless it is impossible to follow out all lines that have their origin in the home environment; a selection must be made, and the government allows absolute freedom of choice to schools and teachers as to what shall be taught within the limits above mentioned. Success or failure, therefore, in science work reflects directly upon the teachers and the management of schools.

The first steps in natural history lead the child to observe the simplest and most familiar forms of plant and animal life in his home region. The wisdom of the teacher is manifested in the selections he makes for class instruction; not all groups are represented in the local flora and fauna, and consideration of too many representatives from any one group is precluded for lack of time. Training in observation demands that the pupil handle the specimens studied and report his own opinions. In botany this can be easily managed, but in zoölogy it becomes a different problem. No laboratories are provided for individual work in natural history, and consequently from the very beginning the opportunity for individual observation is greatly restricted. To overcome this obstacle magnificent collections illustrating almost every department of natural science have been gathered by many of the leading schools. In botany most schools will have a complete herbarium of domestic plants and many specimens of foreign flora. Besides this, models are commonly used for class demonstration, and excellent charts of foreign plants supplement the illustrations of text-books.

Mounted animals, skeletons, and preparations in alcohol are found in large numbers in some schools and are put to good use in the class room, but without laboratory work there is small chance of promoting those habits of "keen and accurate observation" everywhere demanded of instruction in science. Again, the teacher must rely largely on models and charts. And although the German teacher is fortunate in having his choice of the best models and charts in the world, yet there is an obvious contradiction between the demands of theory and the results of practice. In other respects, too, practice often lags so far behind theory that one is inclined to doubt the all-sufficiency of high ideals even in Germany.

It is with no little hesitancy that I attempt an explication of the prevailing methods of teaching the natural sciences in the German schools. So much of the instruction to which I listened was unpardonably bad, that I much distrust my ability to present clearly that which is obviously commendable. Fortunately my experiences were not always disappointing, and on the whole it may be quite as well for the reader to know that German schools and German teachers are not always the paragons of excellence that some would have us think.

We have seen that more time is given to the sciences in the *Real*-schools than in the *Gymnasien*—in Prussia a total of thirty week-hours in the *Realgymnasien* and thirty-six in the *Oberreal-schulen*, as compared with eighteen in the *Gymnasien*. Furthermore the science work in the *Real*-schools is taken more seriously than in the *Gymnasien*. In consequence I have selected as a type of what is done in Prussia the course of study prescribed in the *Königstädtisches Realgymnasium* of Berlin. This is one of the oldest *Real*-schools of the city, founded in 1832, and now attended by nearly six hundred students. For the fifteen classes there are twenty *Oberlehrer* and six *Hilfslehrer*, besides four teachers of drawing, music, and gymnastics. Three *Hilfslehrer* and six *Oberlehrer* teach natural science—no one, however, devoting himself exclusively to science work. The most frequent combinations are natural history, geography, and arith-

metic; natural history, geography, and German; physics (or chemistry), algebra, and geometry; chemistry, natural history, and arithmetic. The *Director* teaches physics, natural history, and religion.

The course followed in this school comes near the high-water mark in Prussia. Such differences as exist in other schools are chiefly due, as I have shown, to the preferences of individual teachers. The teacher who delights in field work will arrange for class excursions, not merely for the sake of securing botanical specimens, but with a view of interesting his pupils in nature and nature study. Another teacher may have a genius for class-room demonstration, and succeed thereby in arousing the right form of scientific curiosity. A third may know how to utilize the laboratory and make it an efficient instrument in promoting inductive research. The *Königstädtisches Gymnasium* has such teachers, and we find represented here all phases of scientific work to be found in any secondary school.

The course in natural history as outlined in the programme of 1895-6 is as follows:

SEXTA, 2 hours. Summer: Description of various plants with large and simple flowers. Explanation of morphological principles. Winter: Description of various mammals and birds and their habits. Explanation of the most important zoölogical principles and laws. — Text-book, Vogel, Müllenhoff, Kenitz-Gerloff, *Botanik und Zoölogie, Teil I.*

QUINTA, 2 hours. Summer: Comparative description of plants of simple structure with a view to their classification according to common and differential characteristics. Study of morphological principles continued. Winter: Comparative description of mammals and birds with special attention to scientific classification. The skeleton of man, of other mammals, and of birds. — Text-book, same as in *Sexta*.

QUARTA, 2 hours. Summer: Comparative description of related plants and species, with special attention to various representatives of families of highly developed plants (*Umbelliferae* and *Compositae*). Extension and classification of the principles of morphology. Toward the end of the semester practice in plant analysis according to the Linnean system. Winter: Comparative study of mammals and birds continued. Description of various representatives of reptiles, amphibians and fishes. Principles of the skeleton

of vertebrates. Classification of vertebrates. — Text-book, same as in *Quinta*.

UNTERTERTIA, 2 hours. Summer: Comparative study of compound flowering plants, *e. g.*, *Amentaceæ* and *Germinaceæ*. Characteristics of the most important families of uncultivated plants. Study of plant morphology continued. Study of plant growth. Analysis of plants. Winter: Comparative study of the anatomy and growth of articulates. Characteristics of insect species. Review of the system of vertebrates. — Text-book, same as in *Quarta, Teil II*.

OBERTERTIA, 2 hours. Summer: Study of gymnosperms and cryptogams, and the most important of cultivated foreign plants. Explanation of the chief morphological, biological, and anatomical characteristics of the same. Arrangement according to the natural system of all plants thus far studied. The simplest principles of plant distribution. Practice in plant analysis. Winter: Description of certain representatives of the lower animals. Review of all animals thus far studied, according to types and classes of the natural system. Fundamental principles of palæontology. — Text-book, same as in *Untertertia*.

UNTERSECUNDA, 2 hours. First semester: The anatomy and physiology of plants and animals continued and extended. Anthropology. Second semester: Physical and chemical peculiarities of water, air, fire, and earth. — Text-book, same as in *Obertertia, Teil III*.

The instructions of the Prussian Department of Education emphasize observation and description of natural objects. The importance of accurate description is seen in the terms everywhere used in Prussia designating the first division of science work, *Naturbeschreibung*; the older designation, *Naturgeschichte*, is still used in Hamburg and some of the southern states.

A necessary prerequisite to observation and description is that the child shall have something to observe and describe. Specimens of plants may be put in the pupil's hand for this purpose and the entire work restricted to the class room. Such a plan may give practice in description, but intelligent observation of nature can be taught only by going to nature herself. The structure of plants and animals may be learned in the class room and laboratory, but the significance of plant and animal life, the interdependence of the lower and higher orders, and the influence of climate, soil, and moisture upon all forms of life are to

be seen only out-of-doors. For this purpose class excursions are usually arranged on half-holidays. The *Königstädtisches Gymnasium* arranges for one excursion a week. Pupils of any class in natural history may take part, but participation is optional. The success of the undertaking is entirely dependent upon the teacher. As may be imagined some teachers have more followers than they can readily manage; others, after making a few trials, conclude that field work is a farce.

These excursions are generally of a half-day's duration, but in some schools there is a midsummer outing of a week or two. The pupils visit various places of interest pertaining to some particular study or line of work which they are about to begin. Geographical points are located and historical events impressed upon the children's minds by perceiving the actual places of their occurrence. Botany, zoölogy, geography, geology, and mineralogy are thus studied objectively, and much material is collected for use in the class room. The appearances and habits of various birds and animals are discovered by experience; the life and habitat of many plants are made known; and all this scientifically conducted and explained by the teacher, serves not only to increase the knowledge but also the interest of the pupil in the pursuit of his studies. The main object, that of increasing the power of observation, is certainly accomplished. It is a difficult matter in the large cities to arrange for excursions far enough into the country to see nature at her best, but parks and zoölogical gardens offer a fair substitute. It must be said, however, that a trip through a city park does not furnish much material for class use. To offset this difficulty many city schools have adopted the charming expedient of maintaining flower gardens of their own. The children plant the seeds and tend their growth, labeling each specimen in true botanical fashion. I have observed, too, that in some of the smaller towns the schools have not only beautiful gardens of flowering plants, but miniature parks, set out with trees and shrubs of rare beauty. A more effective means of awakening an interest in botany, I think, would be hard to devise. Here is a suggestion of what

might be done with the spacious grounds of our American public schools.

I have already spoken of the part played in instruction by the school museum. Considered as a means of elucidating obscure problems incident to class teaching, these collections are very valuable. In this respect some secondary schools rival the smaller universities. The danger is that so long as somewhere in the school there is a chart, model, or mounted specimen of each object studied in class, the museum will be drawn upon for its stores to the neglect of almost all field-work. Precisely this state of affairs exists in the majority of schools that I have visited. My own experience would lead me to say that the average teacher relies almost exclusively upon accumulated stores of past years. While in theory each pupil is expected to have in his hands a specimen of all the common plants as they are discussed in class, I have seen the pea studied by a class of thirty boys from a model that never left the teacher's desk during the hour; and at the close of the lesson not a word was said about noting the plant in its cultivated state, although acres of it were growing within a mile of the site, but, on the contrary, the home task as assigned was *to copy the drawing given in the text-book*. I still have my doubts whether the majority of the class did not conceive of the true flower as being about a foot in diameter.

Such an instance as the one just related is of course an extreme case. The teacher, if he had any object other than drawing his salary, was aiming at systematic botany. And, notwithstanding the efforts of recent years, many of the science teachers are still engaged in teaching botany and zoölogy, physics and chemistry. There is plenty of evidence of this in almost every school. Even the course of study outlined above seems to emphasize at every turn the systematic presentation of the subjects. In the last resort we must turn to the methods employed in instruction rather than the material of the course in order to evaluate correctly the work in natural history.

Observation, inference, and description go hand in hand.

Assuming that a class is provided with something to examine, it is the teacher's business to see that right observations are made. Nothing is gained by puzzling the child or allowing him to waste time and energy in a fruitless search for something he might find instantly if properly guided. As if anyone ever learned to see by groping in the dark! This conception of teaching is characteristically German. One of its principal advantages is that it permits the teacher to lead his pupils quickly and easily to an understanding of some general principle which might otherwise be misinterpreted or overlooked entirely. The course of study, therefore, outlines the general principles which are to be arrived at; the teacher alone is responsible for the methods of procedure.

I find among my notes a fairly typical lesson in zoölogy with boys of ten years of age (*Quinta*). The school is a private institution in central Germany; the topic, "the Seal." The lesson opened with a review of the families of animals already studied, a few individuals being cited as characteristics of each group. Next followed a brief summary of the previous lesson on the means of identifying animals by the teeth and skull. Specimens of these parts were distributed among the class and each boy was requested to name the animal to which his specimen belonged and state the grounds on which he based his inference. Great interest was manifested in this part of the work which was continued for about twenty minutes.

The teacher next directed their attention to a finely mounted seal standing upon his desk. His questions ran somewhat as follows: "What is it? Who has seen one? Where? What did it do? How long can it stay under water? What does it do when it comes again to the surface? How is it able to stay so long under water? Why does it go under water? What does it get there? What else will it eat? Will it eat fresh-water fish? (Several boys are called up to examine its nose and feet.) What about his legs—number, shape, fingers, etc.? How can it close its nostrils? What can you say of its coat? How does the fur lie? What advantage is it to the animal? How

long are its whiskers? What are they for? How long is this seal? (Boy measures it and reports to class.) How broad? What is the shape of its body? Why does it not freeze in the ice-cold water? Is the body of the living seal of the same temperature as the water? What is the temperature of this room? What is the temperature of your body? What enables the seal to keep so warm amid such cold surroundings?"

From the trend of these questions it is easy to infer the answers given by the class. In regard to the habits and habitat of the seal the teacher had to supplement the knowledge of the class. The main purpose of the lesson, apparently, was to emphasize the difference in temperature between the animal body and its surroundings. The subject of food assimilation and oxidation of tissue was treated at length. The recitation, measured both by the interest manifested by the pupils and the skill with which the teacher brought the lesson home to them, was a decided success.

An essential part of the descriptive work in science is the making of a detail-drawing of every object studied in class. In general this is the only home task in science work. The care exercised in writing up the notebooks and in making the drawings is everywhere apparent; sometimes, I suspect, teachers of doubtful ability cover up their own sins by fine displays of notebooks on all public occasions. But whatever the motive may be, it is certainly true that drawing is of most effective service in all science teaching.

Laboratory work, as has been said, is practically unknown in natural history. The nearest approach to it is in plant analysis, but the methods employed preclude the possibility of independent work. The process is precisely the same as is followed in the solution of mathematical problems.¹ Pupils are not given a number of specimens and told to work them out previous to the next lesson. Having learned inductively the main principles of the Linnean system from the classification of individuals studied,

¹ See SCHOOL REVIEW, October-November 1894, on the Teaching of Mathematics in the Higher Schools of Germany.

this knowledge is applied in the process of identifying new specimens. The teacher asks for each of the essential characteristics. The responses of the class are based on strict observation of the specimen in hand. At each step the teacher reviews past observations and calls up the peculiarities of the various classes, orders, and families. Under such leadership it would be strange if any pupil should fail in identifying his specimen. Notwithstanding the great stress put upon observation and description in natural history one is forced to the conclusion that there is little independent observation or unbiased description.

There is something to be said for the teacher who is unable to make his work popular and successful. The residuum of many conversations with science teachers and others is to this effect: In the first place the universities, where all secondary teachers must get their training, take no heed whatsoever to the needs of the schools. The sciences are taught in the most thorough and intensive manner possible. In other words, the man who, after five years of advanced study in the university, the greater part of the time devoted to independent research, can adapt himself to the needs of nine-year-old children is a genius. It is too much to expect of the average man till the university offers training courses for teachers. In the second place the government, while apparently expecting field-work from the fact that botany is regularly put in the summer semester, makes absolutely no provision for it and allows no credit for what may be done. It means, too, that teachers and pupils must give up their half-holidays to outside work. Furthermore the government makes no allowance for the extra demands made upon the science teacher in the collection and preservation of material, the preparation of objects for demonstration, and the supervision of the laboratory work; he must put in full time—twenty to twenty-four hours a week—the same as his colleagues. And finally the excuse is often urged that in the *Gymnasien* the pupils feel it is of small consequence whether they are proficient in the sciences or not; there is no final examination, and even the indolent and dullards

will be promoted if only they know some Latin, Greek, and German. The science teacher, especially if he be not cast in the classical mold, sometimes is made to feel that his social and professional standing is questionable.

Such statements, though coming from thoughtful teachers, should not be regarded as the whole truth. It is unquestionably true that in some schools the teachers of science belong to a different social stratum from the other teachers; but the accident of birth is the important factor. A gentleman may teach science and not lose caste. Germany is far from being a pure democracy, and social distinctions are not always obliterated by recognition of personal worth. On the other hand, there is just cause for complaint from gymnasial teachers when proficiency in other subjects will secure a pupil's promotion in science. This is a serious problem and so long as the government leaves it unsolved there can be no doubt that science is really considered a second or third-rate study.

But after all the shortcomings in the teaching of natural history in the German schools are discovered we are obliged to express high regard for what is accomplished by the leaders of the new movement. As a conspicuous instance of the acme of arrangement and method I subjoin an outline of the course in nature study followed during the first two years in the Jena *Gymnasium*. It will be noted that the aim is not only to give the child information about nature, but to help him to see scientific facts in their interrelations. For this purpose nature study is closely correlated with *Heimatskunde*, that branch of study which aims to give the child an elementary knowledge of his home environment, physical and social. Side by side with the study of botany and zoölogy goes that of geography, history, and the legendary tradition of the country. Few schools in Germany show such careful attention to details, and have so successfully worked out the correlations with kindred subjects.

Nature study in *Sexta*:¹ 1. The local environment;—(a) surface elevations; hills and valleys of the neighborhood. (b)

¹ See Programme of the Jena *Gymnasium*, 1891.

Water courses and roads: formation of valleys. Neighboring water sheds. Influence of the water courses on the local industries: grist mills on the smaller streams; city woolen mills on the Saale. Land, road, and water ways: paths, roads, highways, railroads, boating, rafting. (c) Climate of mountains and valleys. Influence of mountain and forest on atmosphere. Vegetation of mountain sides influenced by position, exposure, etc. (d) Plants and animals: grasses cultivated for fodder (clover, lucerne, etc.), grains (wheat, rye, oats, barley, etc.), esculent plants, plants valuable for manufacturing purposes (flax, hops, etc.), garden fruits, and wild flowers (violet, rose, bell-flower, sunflower, crane's bill, etc.). Plant life, distribution, habitat, dependence on soil, climate, and animals—these facts to be pointed out and studied on the class excursions. The animals studied are as follows: bat, porcupine, mole, shrew-mouse, field-mouse, weasel, squirrel, swine, deer, horse, duck, goose, eagle, woodpecker, song bird, common adder, lizard, frog, carp, honey-bee, May beetle, and ant. Interdependence of animals and man.

In *Quinta* the work is extended beyond the local environment, but is conducted upon the same general principles. While the geography of Thuringia is being studied the names and location of the mountains, towns, valleys, and river courses are learned. In the lessons devoted exclusively to nature study the influences of these natural phenomena upon the climate and industrial life of the people are emphasized. Special industries and natural resources of certain towns, as glass-blowing, the making of pottery, mining of iron and coal, hot springs, etc., are carefully explained, and, when possible, excursions are made to the more accessible towns. The products of the land, its flora and fauna, are studied in so far as it is a continuation of the work in *Sexta*. In a country so diversified as central Germany it is possible to find types of the most common plants and animals within a radius of fifty or a hundred miles. The extensive mountain forests with their well-stocked parks (game animals) and fertile valleys afford abundant opportunity for elementary

study of forestry and the more important agricultural industries.

The excellent results obtained in the Jena *Gymnasium* in some classes and in some schools in all classes lead me to infer that when the sciences are poorly taught the causes are not far to seek. "Where there's a will there's a way" is certainly true in respect of this subject as of all others. The reason why most schools have no "way" worth following is because there is no "will" worth consideration. This is conspicuously true in the case of physics and chemistry in all *Gymnasien*, and with botany and zoölogy in not a few.

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HIGH SCHOOL SELF-GOVERNMENT

THE question of school government is not yet settled. Sometimes it seems that little progress is made. The general tendency is toward absolute despotism, and the desire seems to be only to secure at the head of the school a wise and beneficent despot. Here and there an attempt is made at student self-government, or rather of student participation in the government of the school. Many regard all such plans with suspicion, being opposed on fundamental principles to allowing students any share in governing other students. There seems to be great difficulty in distinguishing between a monitorial system, which tends, in the opinion of some, toward the establishment of false standards and undesirable relationships in the school, and a system by which students are prepared for the almost complete freedom of college life by a gradual approach toward freedom in their school days.

A just criticism on the German school system is that there is no transition from the gymnasium or other secondary schools to the university, but simply a tumble over a precipice from restraint absolute to liberty which, in this case, often is taken to mean license—the fall frequently breaking the student pretty completely. In Lawrenceville, and possibly one or two other academies, the boys in the graduating class reside by themselves and are allowed far more freedom and self-direction than students in the lower classes. Recently the students of the Warren (Pa.) High School have adopted a constitution and established a system of self-government which emanated from Superintendent W. L. MacGowan. He writes that students readily favor the scheme, and that where faculty and students favor it, and a wise person directs, the plan works smoothly. The plan as outlined in the constitution is likely to be of sufficient general interest to justify us in reproducing it, complete:

We, the students of the Warren High School, being desirous of establishing a system of self-government for the purpose of stimulating a feeling of self-respect among our number, and with the further object in view of better preparing ourselves for the future, when each must be the judge of his own conduct and course of action, do hereby adopt this constitution.

ARTICLE I.

SECTION 1. There shall be a senate, composed of representatives from the three classes, four from the senior class, three from the middle class, and three from the junior class. The president of the senate shall be chosen from the entire school by the senate.

SEC. 2. Three representatives shall be elected at the beginning of each semester, by the respective classes.

SEC. 3. No student who has not attended the Warren schools for at least one-half school year previous to his nomination shall be eligible to the senate.

SEC. 4. No student whose average standing in scholarship falls below 75 per cent. for the previous semester shall be eligible to the senate.

SEC. 5. No student whose misconduct during any semester has been of such degree as to bring him twice before the notice of the senate and principal, shall be eligible to the senate during the following semester.

SEC. 6. All students having less than six counts shall vote with the junior class, and all students having less than thirteen counts shall vote with the middle class.

ARTICLE II.

SECTION 1. In case a vacancy occurs in the office of senator on account of resignation, or other cause, the class, in whose representation the vacancy occurs, shall, upon receiving due notice of such vacancy from the president, proceed to elect within ten days a successor, and shall notify the senate of the result of such election.

SEC. 2. The senate shall hold a regular meeting on the Wednesday of every other week. Special meetings may be called at any time by the president.

SEC. 3. Any senator may be removed from office for flagrant violation of the rules laid down in this constitution, or for non-attendance to the duties of his office. The senate shall recommend the removal

of such member, and the school shall decide his removal by a two-thirds vote.

SEC. 4. The senate shall enforce all rules laid down in this constitution and shall have power to recommend punishment for all infringements of its regulations.

SEC. 5. A quorum to do all ordinary business shall consist of five members.

SEC. 6. It shall be the duty of each senator to take note of all students breaking any of the rules laid down in this constitution. When a senator shall have noticed any student breaking any rule or rules three times in two weeks, he shall report such student to the principal, who will keep a list of the names of students so reported. The members of the faculty shall have the same power of reporting any misdemeanors. The principal shall present this list at every meeting of the senate, and the punishment of the students reported shall be considered.

SEC. 7. Deportment shall be marked the same as a study (*i. e.*, the standard shall be 100), and shall have the same value as a study in reckoning the general average.

SEC. 8. The punishment of common misdemeanors shall be such a lowering of the grade in deportment of the individual as the senate shall deem right. This punishment the senate shall have power to inflict without the approval of the faculty. All other punishments shall require the approval of the faculty before being carried into effect. The faculty shall have control of examinations, and shall make such regulations as they think best.

ARTICLE III.

RULE 1. In the main study room no communication shall take place between students either by writing, voice, or sign, unless this communication pertains to studies. Should a student wish to communicate with any other student on matters relative to study he shall go to the person with whom he wishes to consult, and converse in such a manner as not to disturb his fellow students. This rule shall also apply to the period before school opens.

RULE 2. Passage of students to and from classes, up and down stairs, and through the hallways shall be in an orderly and quiet manner. No collection of students in the hallways shall be allowed.

RULE 3. Strict attention will be required of all students during chapel exercises and roll-call.

RULE 4. Students shall have the privilege of leaving the room, but they shall first obtain the permission of a member of the faculty, if one be present, otherwise this permission shall be granted by a senator. In case of emergency a student may leave the room without permission. Each student leaving the room shall record his name and the time of his absence on the blackboard. Only one of each set may be absent at a time, and no student shall be absent more than ten minutes.

RULE 5. During school hours, order shall be maintained in every part of the building. Disturbance by any means, such as the throwing of missiles, or the making of unnecessary noises by the voice, shall not be tolerated.

RULE 6. Leaving the room without permission, except in case of emergency, or leaving the room and not returning before close of session, shall be deemed worthy the notice of the senate without further misdemeanor on the part of the individual.

For the carrying out of the preceding rules, let the honor of the pupils be relied upon. And may it be the wish of each student to see these regulations observed.

ARTICLE IV.

SECTION 1. The senate shall have power to add to this constitution, or to amend any article or articles herein contained, but such amendment shall be approved by a majority of each of the three classes.

SEC. 2. The rules and regulations of the Board of Directors, as far as they pertain to the high school, shall be considered a part of this instrument.

SEC. 3. To establish this constitution it must be ratified by each of the three classes of the high school. In voting on the ratification, the vote of every student shall be recorded by the secretary of each class.

In case other schools have tried or are trying similar experiments we trust they will communicate plans and results, so far as any have been obtained, to us, that we may report the progress along this line from time to time. A wise general agitation of the subject is now called for.

C. H. THURBER

READING IN THE RACINE HIGH SCHOOL

THE college requirements in English make the reading of standard English and American authors an addition to the courses of study of most secondary schools. Much of this can be done in classes, and must be done there if any adequate results are to be obtained by the pupil along the line of analysis of plots, characters, incidents and so forth. These requirements, however, even if well done, do not add heavily to the work of the pupil, and are deficient in not giving enough of such reading. Undoubtedly the framers of these requirements had in mind the amplifying of this work by home reading. At least, that is the interpretation of the matter taken by the Racine High School, and, in consequence, this school has a scheme of required home reading to supplement the above college requirements.

But we were met by the fact that pupils were doing this reading in a valueless way, that is, many knew but little about a book a week or so after they had reached the *finis*. It was impossible for the teachers to question the pupils concerning the matters they should remember, and so a plan was devised to have each pupil report, after having read a book, according to the following blank:

RACINE HIGH SCHOOL

Date..... Your name.....
Book read..... Author.....
When read?..... How many times?.....
..... is my favorite character because he is.....
.....
.....
I most dislike the character ofbecause he is
.....

.....
The book teaches.

.....
I like the book because.

.....
The description I like best is.

.....
Why?

.....
Quote any passage you have memorized.

.....
The author has also written.

.....
I have now read the following books of those required for the class :
.....
.....

Any additional remarks may be put on the back of this sheet.

We realize fully the many objections that may be raised both as to the form given and the character of the results likely to be reached. But we hope that by the time a pupil has read twenty books, even in this way, he will have acquired something of a reading habit.

A. J. VOLLAND

NORTH CENTRAL ASSOCIATION OF COLLEGES AND PREPARATORY SCHOOLS

PRELIMINARY programme for the meeting to be held February 12 and 13, 1897, at the Lewis Institute, Chicago.

FRIDAY, FEBRUARY 12.

9:00 A.M.—Address of welcome by Director Carman.

9:30 A.M.—Address by President Adams.

10:00 A.M.—Report of "Committee on Annual Conference with other Associations," Dean C. H. Thurber. Discussions and motions.

10:20.—Report of "Committee on Relations of Colleges and Secondary Schools," President Canfield. Discussion and motions.

10:40 A.M.—Report of "Committee on Public Legislation Relating to the Granting of Academic Degrees," President Angell. Discussion and motions.

11:00.—Discussion of the following resolution: *Resolved*, That in the opinion of this Association, the tendency to multiply the number of short courses of study in the secondary schools is injurious and ought to be reversed; that courses in secondary schools should be the same for students who intend to go to college and for those who do not; and that the colleges and secondary schools represented in this Association be and are hereby respectfully urged to coöperate for the furtherance of the ends sought in this resolution.

12:45 P.M.—Announcement of Committees.

1:00 P.M.—Lunch at the Lewis Institute building.

2:00 P.M.—Discussion of the following resolution: *Resolved*, That in the opinion of this Association, in the secondary schools

and in the colleges as far as the end of the sophomore year, the foremost object of effort should be the development of the various powers of the pupil rather than the supply of information; that those studies which are best adapted to develop the faculties of the pupils should have predominant place in the several curricula; and that the studies selected for this purpose should receive more prominent and prolonged attention than they do at the present time.

4:30 P.M.—Discussion of the following resolution: *Resolved*, That in the colleges, and especially in the larger universities, the tendency to intrust the freshman class to inexperienced teachers, often inferior to those in the high schools, is a growing evil and ought to be checked; and that every college should provide for bringing the freshmen as far as possible under the inspiring and encouraging influence of the best teachers in the institution.

5:30 P.M.—Dinner in the Lewis Institute, followed by informal conference and miscellaneous business.

SATURDAY, FEBRUARY 13.

9:00 A.M.—Discussion of the following resolution: *Resolved*, That in every secondary school and in college as far as the end of the sophomore year, the study of language and the study of mathematics should be predominantly and continuously pursued; that the study of English, including grammar, rhetoric and composition should continue throughout every course; that two languages besides English should be studied; and that no other studies should be allowed to interfere with the preëminence of the studies here designated.

12:00 P.M.—Unfinished business.

MORE BUSINESS PURPOSE IN TEACHERS ORGANIZATIONS

To the Editor of the School Review:

Your editorial on "More Business Purpose in Teachers' Organizations" in the November SCHOOL REVIEW touches a matter that has often been in my mind ; especially when coming home, disappointed, from various teachers' institutes with the conviction that no action has been awakened, and that the audience has dispersed to as passive an existence individually as it exhibited collectively while gathered in the meeting hall. You imply that reform is possible, and I hope you are right ; but there are serious obstacles to be overcome, and these should be carefully reckoned. There is no great difficulty in securing active speakers to urge improvement in school conditions ; the real difficulty lies in the inertness of the audience. It is generally made up of persons who are only trained in carrying their points with their juniors and inferiors, and who therefore sit in exceeding silence and submissiveness in the presence of their equals. For this reason it is hardly fair to expect such activity in teachers' organizations as is found in the L. A. W., whose membership consists largely of active young professional and business men, well trained in carrying their points or contesting for them with their peers in the affairs of everyday life. Here it is natural to expect energetic and outspoken action under organization. While this contrast prevails, I do not believe that it is possible to obtain any real action from the body of a teachers' meeting. It is only from the councils of such meetings that serious action should be looked for ; and little enough of it is found there. As you remarked, current action deals too much with method, which at best ought to be largely individual, and neglects many larger and more important matters of substance, which must in the nature of the case be relatively universal, through the public

school system of a state. To mention a specific instance, let me consider the case of state topographical maps. For several years past, I have taken every occasion to urge teachers in Massachusetts and Connecticut to unite in demanding from their states that a copy of the state map should be placed in every public school, but with no perceptible result as yet. Many teachers look at the sample maps exhibited in my discourses as strange, peculiar objects, which might discharge questions at them that they could not answer. Some look at the maps as if they admit the possibility of their value in school work, but feel hopelessly unable to bring forward this value themselves. Some of the better trained and more intelligent say that such maps would certainly be useful if furnished to the schools, and yet they do not make the first move in a united effort to get the maps. I have yet to learn of the first instance of organized action among teachers to secure from the state these useful aids in their work.

In Rhode Island, where the state map has been distributed to all the schools, I have made an attempt in a somewhat different direction; namely, towards the use of the map in the intelligent teaching of local, and thus of general, geography. Several addresses on the truisms here involved awakened some appreciative questions from a few of the more outspoken teachers in my audiences, but in face of the admitted ignorance as to the way in which the maps should be used there has not been, to my knowledge, a single intimation of a proposal from the teachers that they should demand from the state the appropriate tools for this part of their trade; that the state should provide them with a brief manual on the use of the map which it has so generously distributed, and which today hangs so uselessly on so many schoolroom walls. Giving up hope of initiation on the part of the teachers, I at length secured the official approval of Mr. Hine at Hartford and Mr. Stockwell at Providence for the preparation and distribution to all the grammar schools in Connecticut and Rhode Island of a pamphlet explaining how the state maps might be used; and these pamphlets are now in

the teachers' hands; but, as far as I can learn, they fall flat, because the teachers have not in their own education had the training that enables them to see a geographical fact outdoors; it must be in print in a book in order to be usable in teaching. Now I am sure that many teachers lament this inability to use the plentiful materials that the state in its natural and official capacity has spread before them; but it never seems to occur even to these most advanced and thoughtful teachers that they should unite in a demand for a better preparation of their successors in the normal schools. Indeed, on mentioning this altruistic plan to one who is professionally well acquainted with teachers, he said it was not to be expected that they would thus proclaim their sense of their own shortcomings. If this be the true reason of inaction, it certainly shows a narrow and selfish view of the place of the teacher in the state, and I am disposed to explain inaction on other grounds, such as the lack of invention or the habit of submission to existing conditions. But from the beginning to the end of the raid that I have been making on existing methods in the teaching of geography in the public schools, I have not seen one single indication of large-minded and united action on the part of the teachers; not a single attempt to use the great power that they might exert in the direction of the improvement of the system of which they are a part. While lamenting the fact, I am glad to see that you are drawing attention to it. Is such inertia inherent in teachers' organizations, or is it merely a temporary phase of their development, to be outlived within an approaching short period of time? For one, I earnestly desire to see more reaction on the part of the teachers upon the system that creates them.

W. M. DAVIS

HARVARD UNIVERSITY,
Nov. 8, 1896

DANGERS OF EXAMINATIONS

Editor School Review.

SIR:—Whether it was by chance or by design of the immortal gods I do not know, but I happened to take up the annual report of President Schurman of Cornell immediately after reading the article on the "Dangers of Examinations" in the November SCHOOL REVIEW. In this article Mr. Jacobs says: "Examinations may perhaps be best relegated to their proper place by considering what they really do for the scholar and how they do it."

In Appendix II of President Schurman's report there are some facts given which seem to bear directly upon this matter. The students who have entered Cornell University during the past six years are divided into three groups as follows:

1. Those who were examined for admission.
2. Those who entered on certificates other than regents' diplomas.
3. Those entered on regents' diplomas.

Of the first group 18.53 per cent. were found deficient in ability to do the required work in the university and were dropped. Of the second group 11.14 per cent. were dropped, and of the third group, 6.46 per cent. This seems to mean that those students who have been brought up under what is perhaps the most complete, though probably the most elastic examination system in the world, make a showing nearly twice as good as that of students holding other certificates, and three times as good as that of students holding no accepted certificates. It certainly appears as if examinations had done something for these students.

Very truly yours,

CHAS. F. WHEELOCK

OUTLOOK NOTES

THE *Nation* for November 12, 1896, has a letter to the editor which ought to be got into the hands, heads, and hearts of all the Jeremiahs who are lamenting the appalling and hitherto unheard of evils of our schools. The writer seems to know no better than to tell the truth plainly. His text is the teaching of English, or rather the fault found therewith, and certain of the remedies proposed. But he brings the discussion down at once from the high plane of psychological, ethical, pedagogical argument to the low, material plane of cost. There are those who object to the introduction of such sordid considerations as that into the discussion of educational reforms. But this writer says, all the same, that the reason English is not better taught is because such teaching as the reformers demand costs more money than the good public is, as yet, ready to pay. The conclusion is, obviously, not that the reformers ought to let up in their agitation, but that they ought to agitate the right parties. But here comes in the old parable of the good preacher who was allowed by his congregation to thunder against the Jews, of whom there were none in that community. It is tolerably safe, pretty popular, and always easy to "go for" the teachers. Everybody knows that they have an easy time of it, little work, large salaries, that they are lacking in training and professional spirit, out of sympathy with the progressive spirit of the times, reactionaries, visionaries, selfishly exacting, unreasonable, tyrannical and, mostly, women without votes. We all know that, the public knows it, but it is good to have our minds stirred up by way of remembrance of these things ever and anon, when a Harvard Overseers' committee gets ready to report especially. That is the season for a "stirring up;" it is good for the system to have it then. But who will for a moment listen to such anarchistic nonsense as

WHY THERE
ARE SO MANY
EVILS

that teachers of English are few and overworked, with already the hardest task of any body of specialists, doing the best they can under heavy disadvantages, understanding better than anyone else the imperfections of their work, anxious to have just a little chance to do better work, a chance, possible only through more teachers who will cost more money? And what if the same line of reasoning be applied in other branches? Truly, money is the root of all evil, especially lack of money.

A common form of intellectual dishonesty results from the ever renewed attempts to find logical grounds for supporting as the ultimate best attainable something which is historically a mere makeshift of necessity. History knows no formal education but male education. When, recently, it came about that girls were considered as having intellects and capacities well worth training and developing, the boys' schools had the field. The best the girls could do was to gain admission to these boys' schools. The girls very generally outnumber the boys in these same schools today, yet the schools remain boys' schools just as before. What was a necessity has become so far a virtue that it is dangerous now for one to suggest that boys' schools are not exactly the very best places in which to bring up girls. Our high schools and academies are modeled for males, they plan to turn out accomplished males, and the females who gain admission to them are turned out just as male as possible, fitted mainly for and often craving after some masculine pursuit. The whole matter has a ludicrous aspect, but it is very serious nevertheless. Why not be honest? We let the girls into boys' schools because that was the easiest and especially the cheapest way to dispose of their demand for an equal education with boys. You desire to be equal with men in education; we go further; you shall be the same as men. And we have really talked ourselves and the girls into believing it. Let no one, now or ever, question the right of woman to a man's education if she wants it, but let there be an end of the hypocritical hypnotism by which we are all

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made to proclaim that a secondary curriculum must always and ever be sexless. Whether there is or is not sex in intellect, there certainly is sex in life. Women as a class do not do and do not want to do the same things as men. The actual and potential careers of women as a class and of men as a class are different. The true friends of the education of girls and women must begin to insist and continue to insist that the course of study shall be so framed as to fit women for their life. Full recognition of the rights of women demands a consideration of her needs in framing courses of study. There is much talk about differentiating courses of study so as to give boys with different aptitudes and, consequently, different potential careers all an equal chance. Let us give the girls an equal chance, and not longer impose upon them and upon ourselves by specious pleas for equality by which is meant identity.

In most respects the meeting of the association of colleges and preparatory schools of the middle states and Maryland at Philadelphia on the days following Thanksgiving was notable and important. A bold innovation in programme making for such meetings won the highest success. The question of admission to college in its various phases occupied the entire time of the meeting. Professor John Quincy Adams had arranged all details with consummate skill. The array of speakers was imposing; interest never flagged; attendance was surprisingly good and steady. In one respect only can the meeting be seriously criticised, namely, in its reluctance to put itself on record. The fault was with the temper of the association, not with the makers of the programme or the leaders of the discussion. The only expression of opinion secured was the passage of the resolution offered by President Schurman to the effect that entrance requirements ought not to be lowered. Even this was not passed without much debate, in which it was clearly shown that any statement less conservative would have failed of adoption. In this debate it was stated again and

COLLEGE
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STATES ASSOCI-
ATION

again, in various forms, that the association needed to remember that it was not a legislative body, and that it could not pass any resolutions or enactments that would be binding upon anybody. The feeling back of this may have been that it was undignified to fire motions in the air. But the fact is that such motions are not fired in the air. Pronounced expressions of opinion by such representative bodies as this are the very best and most effective weapons we have in the battle for educational progress and reform. The proper attitude seems to be, rather, a willingness to go on record, after thorough and careful discussion. Everybody knows that nobody can legislate for anybody in matters of higher education in this, our country, with any binding force; but these great associations ought to go about the formulation of an educational creed just the same, and as soon as they can agree on certain vital points they will find the country with them. In this connection, attention is called to the unique programme of the North Central Association on another page. It is an innovation that is little less than startling. If the meeting is as successful as it promises to be other programmes will surely be framed on this model.

C. H. THURBER

BOOK REVIEWS

Talks on Writing English. By ARLO BATES. Boston: Houghton, Mifflin & Co.

The Problem of Elementary Composition. By ELIZABETH H. SPALDING. Boston: D. C. Heath & Co.

It can hardly be said that the new books are making serious contributions to what is known of rhetorical laws. In our haste to be delivered from the barrens of the Scotch school, the last of the Stagirite race, we have let go all the unsettled problems. Presently the psychologists will solve some of them, like the one the answer to which Mr. Spencer rather distinctly failed to get; and then the psychologists will be the heroes. This neglect of theory has been necessary; better deny that there is a science of rhetoric, better get on with the slovenliest empiricism, than neglect the inarticulate child. At the same time, such books as Mr. Bates' are but brilliant restatements of principles that are somewhat hazily defined, and which are far from telling us all that would profit us as teachers of composition.

Yet what should we ask for in a series of popular lectures? Mr. Bates is none too empirical for his occasion; and his talks add another to the short list of similar works for which we should be thankful—books with literary flavor. No one would think of recommending it—one would think—as a systematic treatment of the subject, for a required course. What freshmen most need is definite rhetorical tasks like those—not to be invidious—provided in Mr. Hale's new *Constructive Rhetoric*. But freshmen and everybody need just such stimulating reading as Mr. Bates' book. They need all the hints that Mr. Bates, as teacher and writer, has been able to give; they need such enthusiasm as his for hard, scrupulous literary training; they need such style and such illustrations as his, tasting of the studio rather than the class room. Higher collegiate courses can make use of the author's full treatment of narrative, of character and purpose, and of criticism; but these chapters are in the main addressed by a successful litterateur to those who plan for a life at letters.

Mr. Bates is indebted to Professors A. S. Hill and Barrett Wendell for a good deal of theory. He supplements Mr. Wendell at certain points. He calls attention to the danger of fixing attention on unity so closely as to produce dryness (p. 35). He warns that the dogma of massing the sentence and the paragraph may lead to artificiality (p. 37). He expands Mr. Wendell's remarks about means and effects into two fine chapters.

There are always minor matters that may be criticised. Commenting on the daily-theme system (p. 26) the author seems severe on students who choose for subjects striking, even sensational, incidents. Must we not have vivid impressions, at any cost? Must we not have a fillip of the student's passive vocabulary of imaginative words? Shall we not be thankful for good romance, if we can't get good realism all at once? Later on (p. 125), there is a misleading word about narrative and description being more "emotional" than exposition and argument. Argument, surely, has not so fully reached the ideal *logikos genos* that we can refer to it in this secure way. On page 50 Mr. Bates thinks the phrase "in these circumstances" pedantic. Isn't there room for doubt here, room for a count from the classics? There certainly is room for surprise when, on page 137, Mr. Bates apparently regards "Old Nick" as a derivation from Nicholas Machiavel. In Macaulay's day there may have been a "schism among the antiquarians" as to the origin of the word. But surely the day of that kind of philology is past.

In the more characteristic parts the book is charmingly written. It recalls no one in particular—neither Mr. Genung's precision, nor Mr. J. M. Hart's terseness, nor Mr. A. S. Hill's nonchalant vigor, nor Mr. Wendell's insistent lucidity, nor Mr. Carpenter's Arnoldian temperance, nor Mr. Hale's brilliant colloquialism; but it is fresh and easy and imaginative and wholly free from mannerisms.

Turning for a minute to a piece of work much slighter in bulk than Mr. Bates', I find it hard to praise sufficiently Miss Spalding's discussion of the problem of elementary composition. It is the work of a born teacher; and we shall never get on with teaching how to write until we are all born anew as teachers. Miss Spalding shows pretty conclusively that the essential dogma of the whole subject can be given profitably to pupils in the grades. There is only one set of laws to learn; why shouldn't we teach them over and over each year from the ever-advancing vantage ground of the boy's or girl's age? How to

point—including how to point relative clauses restrictive and non-restrictive—how to paragraph, how to study words and acquire words for active use, how to love composition and know good English when it is seen—all these things can be so taught in the grades that future progress shall be rapid and delightful.

There is possibly one word of qualification needed to Miss Spalding's admirable suggestions; it is easy to teach too much. Children pick up analytic processes faster than they are sometimes supposed to do; and a boy can distinguish too readily between metaphors and similes; can know too many etymologies that may be right and may not; and he may become free of words that in his mouth will sound like pedantry. But dear me! what a relief it would be to see a few lads over-taught in English, even in "recent exemplifications of false philology."

E. H. LEWIS

LEWIS INSTITUTE, CHICAGO

An Introduction to the Study of American Literature. By BRANDER MATTHEWS, A.M., LL.B., Professor of Literature in Columbia College. (American Book Company.)

OF making manuals for the text-book study of literature there is but small promise of the end. Many teachers know nothing of library methods, or are without libraries with which to use them, and many who have the wisdom lack the energy necessary to conduct work in literature by confining the study to strictly literary materials. Until the average instructor shall be convinced that it is better to guide his class to independent impressions and estimates of half a dozen authors than to cover the whole ground prescriptively, text-books will be in large demand, and literature will wait and suffer as hitherto.

Professor Matthews' book is not a manual of the usual sort. There are no "chapters," there is no discussion of periods, or attempt to set up philosophical divisions in the history of writing or of reading in our commonwealth of letters. The author treats, in an introduction, of literature in general, following this with a six-page mention of colonial books and authorship from John Smith to Jonathan Edwards. The book proper, which then begins, consists of fourteen sketches, in chronologic order, of the great careers that have furnished, essentially, the most and best of what is known as American literature. The subjects respectively are Franklin, Irving, Cooper, Bryant, Halleck and Drake, Emerson, Hawthorne, Longfellow, Whittier, Poe, Holmes, Thoreau,

Lowell, and Parkman. Minor writers such as Bancroft and Prescott, Walt Whitman and Mrs. Stowe, are treated in a supplemental chapter, and the book ends with a few observations upon recent literary tendencies, and some summarizing of the traits or principles met with in the major authors treated. Each of the fourteen chief topics is introduced by a portrait of the author to be discussed, and illustrated by a facsimile of some letter or other manuscript from his own hand. The aim of the author, as declared in the preface, is to arouse the interest of the student in the authors as actual men, and to enable him to see for himself the successive stages of the growth of American literature.

The aim and plan are praiseworthy, and easily practicable within the compass, 250 pages, of the volume. The biographical part of the work is admirably done. The essentials of each personal and literary life are faithfully and accurately told. There is much good style and phrasing throughout the whole. When we come to the critical paragraphs, there is likely of course to be some disagreement, but the author is moderate and conservative everywhere. To tell the pupil so plainly the real literary worth of his authors may not be old-fashioned in many parts of the country where the book will be used, but it should be, and soon will be everywhere. There are questions at the end of each division of the work, to draw out and guide the learner's judgments. But one regrets that the pupil will get off with so little thinking done squarely for himself.

One questions whether it were not well to have treated somewhat more fully the wonderful progress of the novel in this country. Henry James is not claimed as a product of our culture, or even mentioned. There is no allusion to J. T. Trowbridge, who was regarded before the war as our greatest novelist, so that even Lowell, on undertaking the editorship of the *Atlantic Monthly*, secured from him a story for the opening number. How far the taste of the country at that time ranged below the level of Emerson and Hawthorne, it would have been well to note in connection with Holmes' career, for it was Holmes that, with his "Breakfast" papers, lifted the people to the new level. Then should there not have been something by which the student may be helped to put Emerson in his true place in American letters? A hint or two as to how to appreciate and appropriate his work would have been most timely. Is it not misleading to say, as is said (p. 14), "that American writers are of more interest to us here in the United States than are the recent writers of the other great branches of Eng-

lish literature, the writers now living in the British Isles"? No author from among ourselves has been of more interest to the American reading public than Dr. Watson of Liverpool, as the enormous and continued sale of his *Brier Bush* testifies. Heroism and worth need not be American, to stir the American heart.

But Professor Matthews has not attempted to give us more than an introduction to American literature, and there may well be differences of opinion as to what an introduction should include. It is a safe and valuable book, and should in several features set the standard for future handbooks of literature, whether American or English.

L. A. SHERMAN

THE UNIVERSITY OF NEBRASKA

Elementary and Constructive Geometry. By EDGAR H. NICHOLS.
Longmans, Green & Co., 1896.

THIS book has been prepared mainly with reference to the recommendations of the National Committee of Ten. In it "the main facts of plane and solid geometry are taught, not as an exercise in logical deduction and exact demonstration, but in as concrete and objective a form as possible." Designed for pupils between the ages of ten and thirteen it gives little space to the establishment of principles by logical proof. The main object of the author has been to make the child perfectly familiar with the facts and the simple properties and relations of geometric forms and figures. This is to be accomplished by observing diagrams of geometric conceptions, by measuring them, by drawing them, by making them of pasteboard and other materials, and by means of the suggestive questions and discussions. Many useful and important working principles are thus learned without effort, and their certainty impressed by means of abundant concrete illustrations and frequent experimental tests.

It is expected that the book will be used as a supplement to the class-room work rather than as a text-book. After a principle has been developed in class by working out many practical problems, a lesson in the book covering the same general ground may be assigned. At the end of the book twenty blank pages have been reserved for a summary by the student of the principles and definitions as he develops them. In the text heavy type is used in stating principles and to indicate new geometric ideas as they are introduced.

For greater accuracy, the importance of which the author everywhere recognizes, two new words are coined—*symparallel* and *antiparallel*. Parallel lines which have the same direction are called *symparallel* and form no angle with each other, while *antiparallel* lines are those which have exactly opposite directions and form angles of 180 degrees.

The book is conversational in style. New ideas are revealed not by mere statement but by judicious questioning. Most of the principles the student is led to formulate for himself. Many of those points which are difficult for the child to understand—as the subjects of angles, of equivalent figures, and of areas—are explained with more than usual simplicity and clearness.

Altogether the work is one which will be suggestive to the instructor and of interest and assistance to the pupils.

EDWIN P. BROWN

THE MORGAN PARK ACADEMY

Herbart's A B C of Sense-Perception. Translated by DR. WM. J. ECKOF. New York: International Education Series.

THIS book takes its title from the second half of the volume, but the translation embraces also most of Herbart's essays on Pestalozzi, including his important monograph on the "Æsthetic Presentation of the Universe, the Chief Office of Education." The last named essay is already familiar to us in Felkins' translation. The A B C paper being the chief new contribution, the present review may properly be confined to its consideration.

The A B C is one of those excursions into the esoteric realm of educational theory which delight the seer without awakening a corresponding emotion in the practical worker. It is, as Dr. Harris well shows in the preface, an attempt to determine what one might conceive to be an alphabet for the observation of the spatial relations of objects. The alphabet is composed of triangles of various forms. The pupils are to learn the alphabet by studying the chief classes of triangles so as to determine the relative size of the angles and their relations to the sides. After this scheme of triangles (the alphabet of form) has been mastered by the pupil, it is to be applied to the observation of all sorts of spatial objects, those represented by art to some extent, but chiefly those met in the study of geography. Thus on page 263 we

read: "Let the teacher commence the presentation of every new map by naming and pointing out the three most important places on it. They will form a triangle. This will fall into one of the four classes which we distinguished in the second section. Into which? Let that be the first question. Next the student should point out between which columns and rows in the table it should be intercalated. . . . Finally, by comparison with the scale on the map, let the eye estimate the amount of the smallest side of the triangle in miles."

The real purpose of the book is to give an objective, non-mathematical, application of trigonometry to the study of objects in the primary school. To master this machinery would be a greater feat in formalism than any we have seen in modern education. Even the alphabet method of learning to read is largely abandoned; it is unlikely that we shall force our pupils to master a much more complicated alphabet for learning to see.

Lovers of educational theory will probably desire to read the *A B C of Sense-Perception*, but no one of them should imagine for a moment that this trigonometric vision reveals in any degree the practical efficiency of the general Herbartian theory of education. It resembles it as a side-track on a railroad resembles the through route.

The work of the translator has been finely done, while his analysis of the contents adds greatly to the value of the volume. Dr. Harris' preface, though short, illuminates the subject by showing how much weight such an investigation as the *A B C* may be supposed to have. He contrasts it with other possible alphabets of sense-perception in order that the mechanical be not emphasized at the expense of the æsthetic.

CHARLES DE GARMO

SWARTHMORE COLLEGE

NOTES

THE total membership of the N. E. A. for 1896 (Buffalo meeting) is 9048.

THE "Bibliography of Secondary Education," by Professor Elmer E. Brown, will appear in the February number, the delay being due to the unusual care necessary in reading the proof.

THE SCHOOL REVIEW is hereafter to be the official organ of publication for the Michigan Schoolmasters' Club. The proceedings of the November meeting, at Ann Arbor, will appear in an early number.

English in the High Schools is the title of a valuable pamphlet issued by the Ohio State University as an aid to teachers. It contains a full course of study in English for a high school, with many helpful suggestions as to methods, books, and reference works.

AN *American Citizen Series*, edited by Dr. Albert Bushnell Hart, is announced by Messrs. Longmans, Green & Co. In this series, instead of treating the history of the United States consecutively, several phases of the political, economic, and social life of the nation will be taken up separately.

MESSRS. LEACH, SHEWELL & SANBORN have recently issued *The Story of Turnus* from Aen. VII-XII, by Dr. Moses Slaughter, of the University of Wisconsin; *Viri Romæ*, selections, by G. M. Whicher, A.M., Packer Collegiate Institute; *Livy, Book I*, by Dr. John K. Lord, Dartmouth College; *Eutropius*, selections, by Dr. Victor S. Clark.

THE *Sunday School Times* announces for the coming year a series of articles on the lives of the world's greatest educators and teachers, which will be contributed to, among others, by Sir Joshua Fitch (late Her Majesty's Chief Inspector of Training Colleges), H. Courthope Bowen, M.A., General John Eaton, and Professors Drs. Nicholas Murray Butler and Charles H. Thurber.

WE can heartily commend to students, journalists, and all other people who desire to keep well informed on current events and to keep in their libraries a full record of contemporary history, the quarterly publication entitled *Current History*. In many ways this work is unique. It comes in the form of a magazine of about 250 pages, excellently printed and abun-

dantly illustrated; but is really a serial work of reference designed to be permanently bound and added to the library shelves.

THE addresses and proceedings of the Buffalo meeting of the N. E. A., just issued in handsome form by Secretary Irwin Shepard, makes one of the most valuable pedagogical volumes of the year, worth much more than the cost of membership. The printing, done this year by the University of Chicago Press, shows a marked improvement over the preceding volumes. The secretary has just issued a bulletin containing a price list of all the volumes of proceedings and of the reports of the Committee of Ten and the Committee of Fifteen.

THE November issue of the *Kindergarten Magazine* devotes some thirty pages to a well-illustrated article on the new Chicago Normal Training School. What is now known as the Chicago Normal School has been known for years as the Cook County Normal School, or often Colonel Parker's Training School, and is famous for the quality of work done under its faculty. The historic value of such an article cannot be overestimated, and the *Kindergarten Magazine* deserves commendation for keeping a record of all that will be valuable in the next century.

AN important feature of *Harper's Magazine* for several months to come will be Poultney Bigelow's series of papers on the "White Man's Africa," treating in a thoroughly popular way the new continent recently opened up to European exploitation. The series is the result of a journey to South Africa undertaken by Mr. Bigelow for *Harper's Magazine*, and is illustrated from photographs specially made for the purpose. The second part of the late George du Maurier's new novel, *The Martian*, will be given, and will continue the delightful picture of schoolboy life in Paris a generation ago, with which the story opens.

WHY does the December *Review of Reviews* have three leading articles on educational subjects? The answer must be that the public is interested, for Dr. Shaw knows the public feeling as well as any man. Therefore it is a distinct sign of professional progress, and a bow of promise to teachers, this number of the *Review of Reviews*, with "The Kindergarten Age," by Hezekiah Butterworth, "Child Study in the Training of Teachers," by E. A. Kirkpatrick, and "The Sunday Schools; their Shortcomings and their Great Opportunity," by President Walter L. Hervey, among the leading articles. The last is remarkably timely, suggestive and needed.

FRIENDS of education everywhere will hear with pleasure and encouragement that the people of Wisconsin have voted by an enormous majority to fix the salary of the State Superintendent of Public Instruction at \$1200 a year. This was the amount provided in the State Constitution adopted nearly fifty

years ago ; but at the recent election some inconsiderate people of iconoclastic tendencies proposed an amendment fixing the salary at \$3000 a year. The people, however,—and the majority was largest in the most intelligent districts,—very properly and wisely concluded that what was good enough for their fathers was good enough for them, and the amendment was heartily defeated. Congratulations to Wisconsin on its magnificent stand for economy, and the unsurpassed courage with which it faces to the rear.

A draft of a bill to establish a State Library Commission will be presented to the Illinois State Library Association at its next meeting, to be held at Springfield, January 20, 1897. Legislators, teachers, and all persons interested in library extension are urged to attend and join in the discussion. A State Library Commission is a small board of unsalaried officers, appointed by the governor for a term of years, to promote the establishment of free public libraries, and to give advice, when asked, in regard to selection of books, cataloguing and administration of libraries in the state. The purpose of this movement is admirable, but on general principles we are opposed to entrusting important public interests to unsalaried boards. We hope the State Library Association may see its way to recommending a plan more like that followed by the regents of the University of the State of New York.

Graduate Courses, 1896-7, an important handbook for all persons interested in advanced courses in American universities, has recently appeared. The publication is authorized by the Federation of Graduate Clubs, and is edited by a corps of twenty-four graduate students, under the direction of C. A. Duniway, of the Harvard Graduate School. The plan of the handbook is to present full lists of courses for graduate students to be offered in 1896-7 by twenty-four of the leading universities and colleges. In addition to lists of courses, the reader will find succinct statements of the academic careers of professors and instructors; special facilities in the various departments; requirements for advanced degrees and for admission to graduate standing; fees exacted of graduate students; fellowships and scholarships open to such students, and many other valuable details. The work is published by Leach, Shewell & Sanborn, at 30 cents, postpaid.

DURING 1897 the *Atlantic Monthly* will publish, in addition to technical educational studies, articles treating of these important phases of educational work: "The Place of the Public School," in typical communities where the life of the community centers about the school; in these communities the public school has in many respects the ideal attitude to the life about it. There will appear also articles conveying thorough studies of certain great popular educational forces or agencies, such as: "The Chautauqua Movement,"—what it has contributed to the intellectual development of the masses; "The National Educational Association,"—what measure it gives of

the rise in the dignity and in the efficiency of public school teachers; "The Extension of the Use of Libraries,"—the part they play, in the new era of library development, in the cultivation of the masses. President D. C. Gilman, of the Johns Hopkins University, Baltimore, and president of the board of trustees of "The Peabody Educational Fund," will write of the use made of this great benefaction. "Teachers' Pensions" will be thoroughly considered in an early number, from the points of view of the teacher and of the public.

THAT St. Paul appreciates its loss and Newark's gain by the transfer of Superintendent Gilbert to the latter city, is sufficiently indicated in the following extract from the *St. Paul Globe*:

"Rarely has any man received from the community in which he labored for years such a tribute as was paid to Mr. C. B. Gilbert last evening by the people of this city. The severance of his long connection with our public school system, made necessary by his removal to Newark, N. J., was the occasion of a public demonstration as unusual as it was marked by deep feeling and earnestness. It is true that no words that might be spoken and no honor that might be conferred could adequately express the great debt which the people of St. Paul owe to the man whose services they have lost. He is one of the foremost educators in the United States. He is a thinker and an originator as well. He takes the broadest and noblest views of his chosen profession, and he has both unlimited personal enthusiasm and the faculty of inspiring others. The rare union of these qualities accounts for his great success in educational work here, and makes it impossible that we shall be able to fill his place."

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